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International Specialists in the Environmental Sciences

DATE: September 21, 1982

TO: John Osborn

FROM: Hussein Aldis and Thomas Tobin T.A.T. HA.

SUBJ: Hazardous Site Ranking for Washington State Sites

REF: TDD 10-8207-03

CC: Philip Wong

Enclosed are the hazardous site rankings for the sites listed below for the State of Washington per TDD 10-8207-03. These rankings are based on the best available information at this time and include the recommendations of the Quality Assurance Team concerning Western Processing Company, Inc., and Kaiser Aluminum and Chemical Corporation.

SITE	RANKING SCORE
Tacoma Industrial Complex	68.65
Frontier Hard Chrome, Vancouver	57.92
Kaiser Aluminum (Mead), Spokane	51.67
Colbert Landfill, Spokane	45.55
Western Processing Company, Inc. Kent	44.50
RSR Corporation (Quemetco), Harbor Island	42.05
McCord AFB, Lakewood	35.78
Alder Mill, Twisp, WA	32.20
Farm Machinery Corporation, Yakima	32.18
Pittsburg and Midland Coal Mining Co. North Fort Lewis	31.64
USDA Experimental Laboratory, Yakima	28.55
Silver Mountain Mine, Okanagon Co.	26.43
Queen City Disposal Site, Maple Valley	21.02
Holden Mine, Chelan Co.	5.00

Complete detailed backup documentation for these sites with the exception of Holden Mine, will be provided as soon as possible.

44985

Enclosures
HA/TT:jg
FIT/4
r-w

PRP CODE #212
M-0005

Is the facility completely surrounded by areas of higher elevation?

no

1-Year 24-Hour Rainfall in Inches

1.8" (90% of 2 yr, 24 hr rainfall) NOAA Atlas 2

Distance to Nearest Downslope Surface Water

immediately adjacent

Physical State of Waste

dust

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

none

Method with highest score:

as above

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

lead

Compound with highest score:

lead

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

more than 30,000 cu. yds.

Basis of estimating and/or computing waste quantity:

area contaminated and assumption of 6" soil contaminated to level where it is hazardous waste as defined by RCRA.

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5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

commercial, recreational boating, and fishing

Is there tidal influence?

yes

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

none

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

none

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

none

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

none

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

none

Total population served:

none

Name/description of nearest of above water bodies:

Duwamish River, Elliot Bay

Distance to above-cited intakes, measured in stream miles.

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1 OBSERVED RELEASE

Contaminants detected:

lead

Date and location of detection of contaminants

1977-present, hi-vol, every 6 days (John Robers, personal communication PSAPCA, 8/13/82)

K60 PSAPCA station
K71 At Texaco 1980-present 7.42 ug/cu.m.

Methods used to detect the contaminants:

Hi-vol Standard EPA

Rationale for attributing the contaminants to the site:

concentric distribution of lead dust around facility
blood lead levels in nearby workers

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2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

no

Most incompatible pair of compounds:

none

Toxicity

Most toxic compound:

lead

Hazardous Waste Quantity

Total quantity of hazardous waste:

>10,000 cu. yds.

Basis of estimating and/or computing waste quantity:

area contaminated

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3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi	0 to 1 mi	0 to 1/2 mi	0 to 1/4 mi
>10,000	>10,000	6,000	>3,000

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Distance to critical habitat of an endangered species, if 1 mile or less:

Land Use

Distance to commercial/industrial area, if 1 mile or less:

within-commercial/industrial area

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

none

Distance to residential area, if 2 miles or less:

1/4-1/2 mile

Distance to agricultural land in production within past 5 years, if 1 mile or less:

none

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

none

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

none known

June 28, 1982 OSBORN

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME: RSR CORPORATION (QUEMETCO)

LOCATION: HARBOUR ISLAND, SEATTLE, WASHINGTON

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

lead

Rationale for attributing the contaminants to the facility:

facility is lead-acid battery recycler
distribution of lead in dust shows marked gradient away from RSR

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2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

none, not used, almost at sea level on an artificial island

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

probably less than 20 feet to groundwater

Depth from the ground surface to the lowest point of waste disposal/ storage:

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

Nov.-April = 29.57"

Mean annual lake or seasonal evaporation (list months for seasonal):

Nov.-April = 5.52"

Net precipitation (subtract the above figures):

24.05"

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

sand and silt

Permeability associated with soil type:

10^{-3} - 10^{-5}

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

dust

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3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

none - surface dust

Method with highest score:

as above

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

lead

Compound with highest score:

lead

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

area of Harbour Island = 183 accres approx. (Health District files)
more than half is paved, remainder ≅40 acres
soils fail EPA EP toxicity test - contain up to 18% lead in 200-mesh fraction
lowest level found = 0.46% = 4600 mg/kg
top six inches on 40 acres ≅ 32,281.4 cu. yds.

Basis of estimating and/or computing waste quantity:

area of severly contaminated soil failing EP toxicity test
estimate only but certainly greatly in excess of 2500 tons.

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5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

none

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

none

Distance to above well or building:

none

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

none

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

none

Total population served by ground water within a 3-mile radius:

0

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

High levels of lead in sediments opposite storm drain discharge points draining Harbour Island

Rationale for attributing the contaminants to the facility:

contamination corresponds to drainage from area contaminated by facility

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2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

less than 2%

Name/description of nearest downslope surface water:

Duwamish River and Elliot Bay

Average slope of terrain between facility and above-cited surface water body in percent:

less than 2%

Is the facility located either totally or partially in surface water?

no